

1. Identification of Substance & Company

Product	
Product name	RAMSET POZIFLO GROUT HS
Other names	none
Product code	RPGHS
HSNO approval	HSR002545 - Construction Products (Toxic [6.7A]) Group Standard 2006
UN number	Not allocated
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	1T (recommended)
Poison schedule	NA
Uses	Free flowing pourable grout for machinery bedding where high strength required

Company Details	
Company	Ramset New Zealand A Division of ITW New Zealand 29 Poland Rd Glenfield Auckland 0627 New Zealand
Address	
Telephone	+64 9 444-3510

Emergency Telephone Number: 09 444-3510 (Monday to Friday. 8:00 am to 5:00 pm)
POISON CENTRE NUMBER: 0800 764 766 (24 Hours)

2. Hazard Identification**Hazard Classifications**

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002545 Construction Products (Toxic [6.7A]) Group Standard 2006, and is classified as follows:

Classes:

- 6.3A skin irritant
- 8.3A eye corrosive
- 6.7A known carcinogen (contains crystalline silica)
- 6.9A known human target organ toxicant (may cause silicosis and related effects to the lungs)
- 9.1D harmful to the aquatic environment

Note: wet grout is considered irritating to the skin under the classification system; however, there is a possibility of burns if wet grout is left in contact with the skin for a prolonged time.

Other Classifications

There are no other classifications that are known to apply.

Hazard and Precautionary Statements

Hazard	Causes skin irritation. Causes serious eye damage. May cause cancer. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life.
Precautionary	Keep out of reach of children. Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear protective gloves/eye protection/face protection. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Collect spillage.

Further precautionary statements can be found in Section 4 – First Aid.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Class for ingredient(s)	Conc (% w/w)
Crystalline silica	14808-60-7	6.7A, 6.9A	30 – 60%
Portland Cement	65997-15-1	8.3A, 6.3A, 6.7A, 6.9B	30 – 60%
Ingredients deemed to be non-hazardous	NA	Non hazardous	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid**General Information**

You should call the National Poisons Centre if you feel that you may have been harmed, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

If medical advice is needed, have this MSDS, product container or label at hand. If exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is recommended. Emergency shower, hand wash, soap. CPR training, oxygen mask.

Exposure**Swallowed**

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Contact a doctor if you feel unwell.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. Immediately call a POISON CENTER or doctor.

Skin contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor. If experiencing respiratory symptoms: Immediately call a POISON CENTER or doctor/physician.

Advice to Doctor

Treat symptomatically. See Section 11 for information on potential long term health effects from exposure to very fine crystalline silica dust.

5. Firefighting Measures**Fire and explosion hazards:**

There are no specific risks for fire/explosion for this chemical. It is non-combustible. Not applicable.

Suitable extinguishing substances:**Unsuitable extinguishing substances:**

Unknown.

Products of combustion:

Product does not burn. Dust may form irritating atmosphere. Product will react exothermically with water. Contaminated water will be strongly alkaline. Product may decompose in a fire and produce toxic or corrosive fumes.

Protective equipment:

Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code:

1T (recommended)

6. Accidental Release Measures

Containment	If greater than 1000kg is stored, secondary containment is required. Emergency plans to manage any potential spills must be in place. Prevent spillage from spreading or entering soil, waterways or drains.
Emergency procedures	In the event of large spillage (>100kg) of the dry or wetted mixture alert the fire brigade to location and give brief description of hazard. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain spill. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses.
Clean-up method	Collect product avoiding any dust formation, and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	The dust may form irritating atmosphere. Contaminated water will be strongly alkaline. Do not allow contaminated water to enter the environment. Wear protective equipment to prevent skin and eye contamination and the inhalation of dust. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep in a cool, dry place. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. Minimise dust generation and accumulation. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of dust.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by the NZ Ministry of Business, Innovation and Employment (MBIE) for this product. There is a general limit of 10mg/m³ for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (2013)	Ingredient	WES-TWA	WES-STEL
	Sand (Quartz)	See crystalline silica	no data
	Portland Cement	10mg/m ³ (as nuisance dust)	no data
	Crystalline Silica (6.7A)		
	Cristobalite	0.1mg/m ³ (as respirable dust)	no data
	Quartz	0.2mg/m ³ (as respirable dust)	no data
	Tridymite	0.1mg/m ³ (as respirable dust)	no data
	Tripoli	0.2mg/m ³ (as respirable dust)	no data

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment
Eyes


Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses.

Skin


Avoid repeated or prolonged skin contact. Wear overalls, waterproof boots and impervious alkali-resistant gloves (e.g., nitrile, PVC, rubber, neoprene).



Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Take special care to ensure that cuts/abrasions or irritated skin are not exposed to this product. It is also important to ensure that wet grout does not become trapped within gloves, boots or clothing – leaving grout in contact with the skin for extended period of time may cause skin burns.



It is important that skin is also covered when dust is created (e.g., sanding). The dust may also irritate and/or damage the skin.

Respiratory


To prevent irritation a well fitted dust mask should be used (this is not recommended when exposure is close to the WES). A fine particulate half or full face respirator with an effective seal is recommended when airborne concentrations approach the WES (section 8). If sanding, grinding, crushing or cutting grout, it is possible that the silica dust WES (0.02 mg/m³) will be exceeded, hence a respirator will be required. If exposure to the concentrated aqueous solution, dust and mist is likely, a full face respirator with a particulate filter is recommended.

WES Additional Information

No additional information

9. Physical & Chemical Properties

Appearance	Fine grey sand/cement based powder
Odour	No odour
pH	11 when mixed with water
Vapour pressure	Not applicable
Viscosity	Not applicable
Boiling point	No data
Volatile materials	No data
Freezing / melting point	No data
Solubility	Insoluble in water
Specific gravity / density	1.35 @ 20°C
Flash point	Non flammable
Danger of explosion	No data
Auto-ignition temperature	No data
Upper & lower flammable limits	No data
Corrosiveness	Corrosive to eyes, may be corrosive to skin when wet.

10. Stability & Reactivity

Stability	This product is unlikely to react or decompose under normal storage conditions. This product will not undergo polymerisation reactions.
Conditions to be avoided	Contact with water will cause product to harden.
Incompatible groups	water
Hazardous decomposition products	None known
Hazardous reactions	No specific hazards.

11. Toxicological Information

Summary

Health effects from the likely routes of exposure:

Acute effects:

Swallowed: Alkaline corrosive to mouth and throat. May cause burning sensation and abdominal discomfort.

Eyes: Contact with wet grout dust can cause effects ranging from irritation to serious eye damage/burns and blindness. The pH of the mixture is 11. Note: the level of irritation/damage is dependent on the quantity of the dust, the pH, and the length of time exposed. E.g., if dust is washed out of the eye immediately, effects will be minor. However, if dust or wet grout is left in contact with the eye, serious damage/blindness could result.

Skin: Contact will dry the skin and may cause alkali burns and irritant contact dermatitis, especially when plastic (unhardened). Due to trace amounts of hexavalent chrome (Cr(VI)), wet grout may cause chromium sensitisation and allergic contact dermatitis to some individuals. Drying grout is hygroscopic, i.e. absorbs water. It will draw water away from any material it contacts-including skin. This may cause irritation – particularly in hot conditions or when sweating. Brief exposure to the skin (i.e., washed off immediately) will result in irritation. However, if the grout or dust is left on the skin for an extended time (e.g., if inside boots or absorbed through overalls), burns to the skin are possible. Thickening of the skin and/or rash is also possible.

Inhaled: Irritating to nose, throat and respiratory system causing coughing and sneezing.

Chronic effects:

Inhaled: Repeated inhalation of dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung) and lung cancer. It may also increase the risk of scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs). Crystalline silica dust derived from the use of this product could be inadvertently inhaled during the dry cutting of grout.

Skin: Repeated skin contact with cement in wet grout has been associated with both irritant dermatitis and allergic (contact) dermatitis. The latter is due to the presence of traces of water soluble hexavalent chromium in cement.

No specific data is available for this mixture. Where available, toxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below (supporting data):

Supporting Data

Acute	Oral	The estimated LD ₅₀ (oral, rat) for the mixture is > 5,000 mg/kg.
	Dermal	The estimated LD ₅₀ (dermal, rat) for the mixture is > 5,000 mg/kg.
	Inhaled	The estimated LC ₅₀ (inhalation, rat) for the mixture is >5 mg/L (dust mist). Short term (acute) silicosis (see "systemic" below) can also occur with one-off exposures to extremely high levels of fine crystalline silica dust.
Chronic	Eye	pH is 11 when mixed with water.
	Skin	As above
	Sensitisation	There is evidence that chromium present in some cement mixtures may induce occupational asthma and skin sensitisation (allergic reactions). This mixture contains only traces of hexavalent chromium and hence is not considered sensitising.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	This mixture does contain crystalline silica. Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC Group 1). The mixture triggers 6.7A classification (confirmed carcinogen).
	Reproductive / Developmental	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	The mixture is considered to be a target organ toxicant, because of the presence of crystalline silica at greater than 1%. Crystalline silica triggers 6.9A classification if it is in the form of a fine respirable dust in an occupational (chronic exposure) setting. This is due to the development of acute silicosis which can occur following exposure to extremely high levels of fine silica dust. Silicosis is a type of pneumoconiosis – a disease of the lung that causes inflammation, scar tissue, lesions and fibrosis in the lung (alveolar). Symptoms include shortness of breath, cough, fever, loss of appetite and cyanosis (bluish skin). Silicosis can occur following prolonged exposure (e.g., 10 years) to relatively high levels of fine crystalline silica dust.
	Aggravation of existing conditions	Persons with existing lung conditions may be at a higher risk of further adverse health effects (as above). Smokers have an increased risk of lung cancer and silicosis.

12. Ecological Data

Summary

Grout and grout mixtures are considered to be harmful in the environment when in a soluble form. This is primarily due to the high pH of the product.

Supporting Data

Aquatic	No data for mixture is available. Using EC ₅₀ 's for ingredients, the estimated EC ₅₀ for the mixture is between 1 and 100 mg/L. This implies that grout should be considered harmful in the aquatic environment. Water contaminated with this product is alkaline and should not be allowed to enter the environment.
Bioaccumulation	Not applicable
Degradability	Not applicable (predominantly natural products)
Soil	No data available for the mixture. The soil toxicity value for the mixture is estimated to be ≥ 100 mg/kg.
Terrestrial vertebrate	This product is not considered harmful to terrestrial vertebrates. No LC ₅₀ (diet) data for ingredients are available and the classification is based on the LD ₅₀ (oral) – see section 11 – oral toxicity.
Terrestrial invertebrate	The mixture is not considered harmful to terrestrial invertebrates.
Biocidal	Not designed as a biocide.

13. Disposal Considerations

Restrictions	Local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

14. Transport Information

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). It is not considered a hazardous substance for transport.

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	1T (recommended)

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002545: Construction Products (Toxic [6.7A]) Group Standard 2006.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

MSDS	To be available within 10 minutes in workplaces storing any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Approved Evacuation Scheme required if > 1000kg is stored.
Approved handler	Approved handlers are NOT required if this product is used in the construction industry (exempted requirement under construction group standards).
Tracking	Not required.
Bunding and secondary containment	Required if > 1000kg is stored.
Signage	Required if > 1000kg is stored in any one location.
Location Test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information
Abbreviations

Approval Code	Approval Construction Products (Toxic [6.7A]) Group Standard 2006, Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority (now known as EPA)
EPA	Environmental Protection Authority (formerly known as ERMA)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS	Material Safety Data Sheet (or Safety Data Sheet)
MBIE	Ministry of Business, Innovation and Employment (New Zealand)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day.

References

Data	Unless otherwise stated comes from the ERMA HSNO chemical classification information database (CCID) http://www.ermanz.govt.nz/hs/compliance/chemicals.html , for specific chemicals.
ERMA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
WES 2013	The NZ Workplace Exposure Standards Effective from 2013, published by MBIE and available on their web site – www.osh.govt.nz .
Other References:	Ramset MSDS, Bostik MSDS, ChemIDplus

Review

Date	Reason for review:
April 2013	NA - New MSDS

Disclaimer

This MSDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The MSDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the MSDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications, are based on our experience, ERMA Guidelines and international classifications. This MSDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the MSDS author, email info@datachem.co.nz or phone: **+64 9 940 30 80**.

